



Installation and Operation Manual

MOUNTAIN SERIES

Stone Hearth Oven
Gas-Fired European Models



MT. CHUCKANUT

WS-MS-4-(RFG, RFG-IR)-(W)-CE

MT. ADAMS

WS-MS-5-(RFG, RFG-IR)-(W)-CE

MT. BAKER

WS-MS-6-(RFG, RFG-IR)-(W)-CE

MT. RAINIER

WS-MS-7-(RFG, RFG-IR)-(W)-CE



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INSTALLATION AND OPERATION MANUAL FOR WOOD STONE

WS-MS-(4, 5, 6, 7)-(RFG-IR, RFG)-(W)-CE-(NG, LP)

EUROPEAN MODEL

STONE HEARTH OVENS

NATURAL GAS OR LIQUID PROPANE FUELED



This appliance is for professional use by qualified personnel. This appliance must be installed by qualified persons in accordance with the regulations in force. This appliance must be installed with sufficient ventilation to prevent the occurrence of unacceptable concentrations of substances harmful to health in the room in which it is installed. This appliance needs an unobstructed flow of fresh air for satisfactory combustion and must be installed in a suitably ventilated room in accordance with current regulations. This appliance should be serviced by qualified personnel at least every 12 months, or sooner if heavy use is expected.



WOOD STONE MOUNTAIN SERIES GAS-FIRED OVEN OPERATING INSTRUCTIONS

DO NOT THROW THIS MANUAL AWAY

RETAIN THIS MANUAL FOR FUTURE REFERENCE

Additional copies of this manual at woodstone-corp.com.

For prompt responses to service/maintenance questions, call your distributor.

READ ALL INSTRUCTIONS BEFORE INSTALLING AND USING THIS APPLIANCE

Please read this entire manual before you install the oven. Failure to follow instructions may result in property damage, bodily injury or even death. Contact your local building or fire officials about restrictions and installation inspection in your area.

FOR YOUR SAFETY: Consult your local gas supplier for a statement outlining a procedure to be followed in the event you smell gas. Post the statement in a prominent location.

FOR YOUR SAFETY: Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance. Also, always keep the area under and around this appliance free and clear of any and all combustible materials.

IMPORTANT: It is recommended that this oven be installed, maintained and serviced by authorized professionals.

WARNING: Improper installation, adjustment, alteration, service or maintenance can result in property damage, injury or death. Read the installation, operation and maintenance instructions thoroughly before installing or servicing this equipment.

Wood Stone's gas-fired ovens have been tested and approved by
Intertek Testing Services and are listed to BS EN 203-1: 2005.



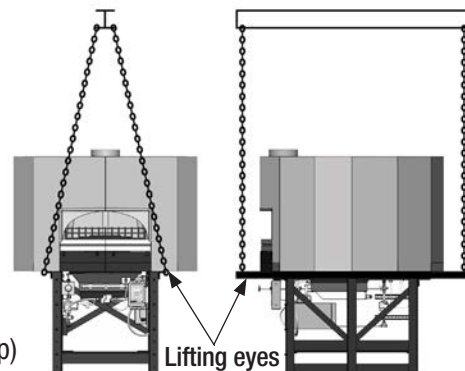


LIFTING THE OVEN

1. USING A CRANE

The oven arrives with four lifting eyes attached. When craning a Wood Stone oven, use a spreader bar with a two-legged sling rigged on each end. The spreader bar should be of a sufficient length to keep the sling from contacting the oven.

NOTE: Once lifting eyes are no longer needed, remove the lifting eyes one at a time **AND BE SURE TO REPLACE THE BOLTS THAT ATTACH THE OVEN TO THE STAND.**

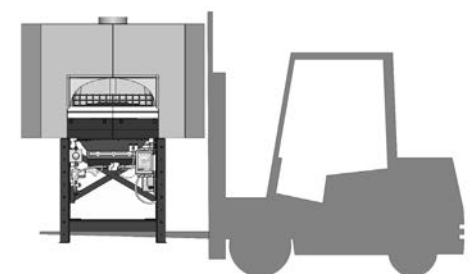


Make fast (straps or chains should not be allowed to slip)

2. USING A FORKLIFT

Be sure to use a forklift rated, and forks the minimum length, as shown in the table below. If necessary, fork extensions must be used so the forks extend through the fork lift pockets to the opposite side of the stand. Lift from either side as shown. Do not lift from the front or back. The oven is very top heavy, so spread the forks as far apart as possible.

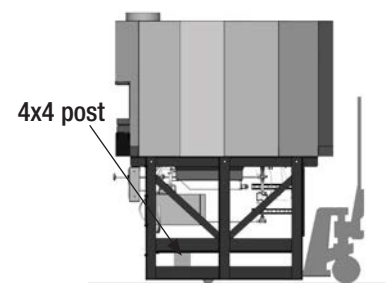
Model	Oven	Approximate ship weight	Minimum fork length required	Required forklift capacity
WS-MS-4	Mt. Chuckanut	1,000 Kg.	1.2 m (4')	2,000 Kg
WS-MS-5	Mt. Adams	1,500 Kg	1.5 m (5')	3,000 Kg
WS-MS-6	Mt. Baker	1,900 Kg	1.8 m (6')	3,000 Kg
WS-MS-7	Mt. Rainier	2,400 Kg	2.1 m (7')	4,000 Kg



3. USING A PALLET JACK

Once the oven has been removed from the delivery vehicle, it can easily be moved on flat surfaces using a pallet jack. To lift the oven with a pallet jack, remove the front and rear angle iron stabilizers from the base of the oven stand and place a stout 4x4 post through the fork pocket as shown.

THE OVEN IS VERY TOP-HEAVY. MOVING THE OVEN UP OR DOWN A RAMP OR INCLINE ON A PALLET JACK IS NOT SAFE!



DO NOT TURN THE OVEN ON ITS SIDE!

Moving a Wood Stone oven can present challenges to even the most experienced riggers. Secure the proper equipment and make safety your first priority. Please don't hesitate to call your distributor for technical support.



IF THIS OVEN IS NOT PROPERLY INSTALLED A FIRE MAY RESULT. TO REDUCE THE RISK OF FIRE, FOLLOW THESE INSTALLATION INSTRUCTIONS. A MAJOR CAUSE OF OVEN RELATED FIRES IS FAILURE TO MAINTAIN REQUIRED CLEARANCES (AIR SPACES) TO COMBUSTIBLE MATERIALS. IT IS OF UTMOST IMPORTANCE THAT THIS OVEN BE INSTALLED ONLY IN ACCORDANCE WITH THESE INSTRUCTIONS.



WARNING: Installation and servicing of this product could expose you to glasswool/ceramic fibers as well as calcium silicate dust. **ALWAYS WEAR RESPIRATORY AND EYE PROTECTION WHEN INSTALLING OR SERVICING THIS APPLIANCE.** Please read this entire manual before you install the oven. Failure to follow instructions may result in property damage, bodily injury or even death. Contact your local building or fire officials about restrictions and installation inspection in your area.

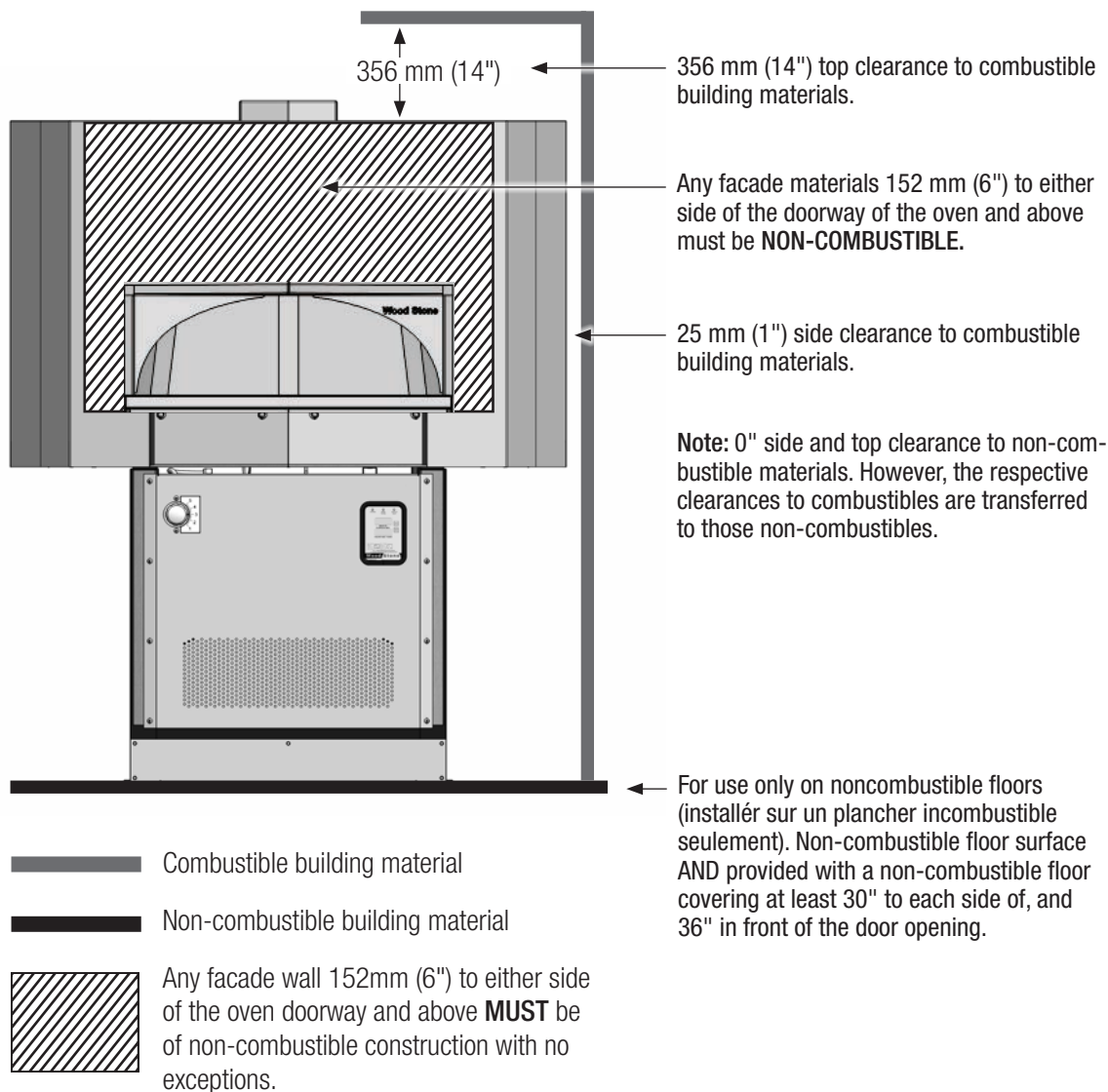
CLEARANCES

- a. Wood Stone gas-fired oven should have a minimum 25 mm (1") clearance to combustibles from all sides, and 356 mm clearance to combustibles from the top. If building a facade that will contact the oven, use completely non-combustible materials*. Please note that standard Drywall (or Sheetrock) is considered a combustible. Stucco equipped ovens must have a minimum 25 mm (1") thick application of non-combustible stucco cement applied to the body of the oven.
- b. Any facade materials 152 mm (6") to either side of the oven doorway and above must be constructed of non-combustible building materials.
- c. Install this oven only on noncombustible floors.

* When noncombustible building materials contact the body of the oven, the respective clearances are transferred to those non-combustibles.



THE FOLLOWING CLEARANCE INFORMATION APPLIES TO ALL WOOD STONE MOUNTAIN SERIES OVENS



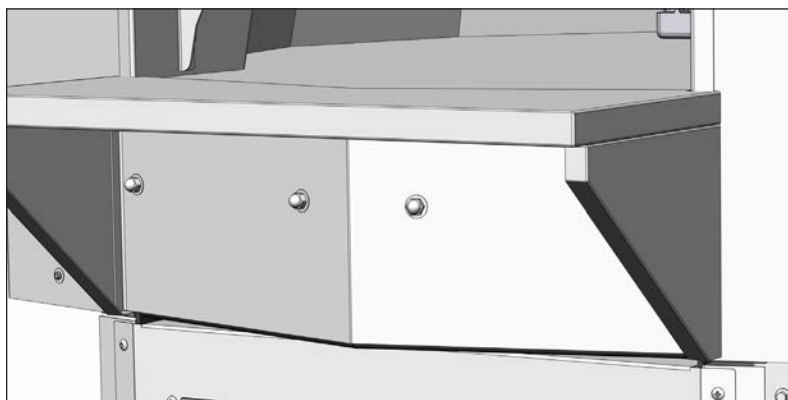
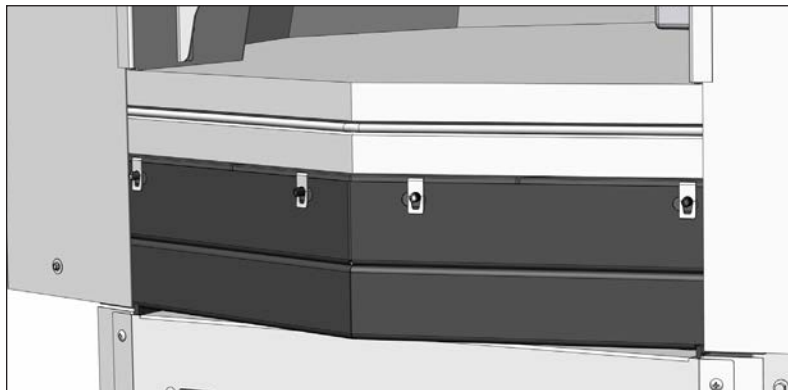


ASSEMBLY

1. Mount the oven mantle (if provided) directly below the doorway and flush with the floor using the hardware provided.
2. Mount the stainless steel toe kick to the front of the oven stand, near the floor using the hardware provided.
3. Mount the service/intake panel to the brackets on the front of the stand, directly below the doorway, using the hardware provided.
 - a. Do not obstruct the flow of combustion and ventilation air between the toe kick and the bottom of the service/intake panel.
 - b. This panel is the only access for servicing the gas and electrical components of the oven so it must be left accessible and removable.



The initial steps are the same for mounting either a stainless mantle or a bracket for a granite mantle.



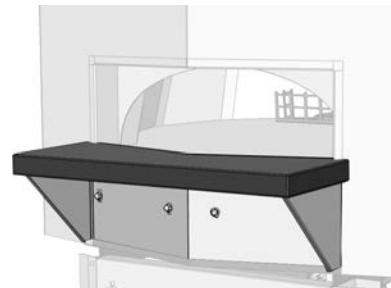
1. Begin by installing the threaded studs into the clip nuts below the oven doorway (3 or 4 turns is sufficient).
2. Position the mantle (or bracket) on the oven, making sure the rear flange rests on the floor of the oven (you may need an extra pair of hands).
3. Place one stainless steel washer and a cap nut onto each stud. Tighten the cap nuts so the mantle is securely held in place.
4. Using the high temperature silicone (provided), fill any gaps between the oven hearth and the mantle flange. Gaps between the mantle flange and the stainless steel doorway frame may also need to be filled with a small amount of the silicone sealant. Clean up any sealant before it dries.

INSTALLATION OF GRANITE

After completing the steps outlined above, apply a generous amount of silicone adhesive (provided) to the top of the steel mantle bracket.

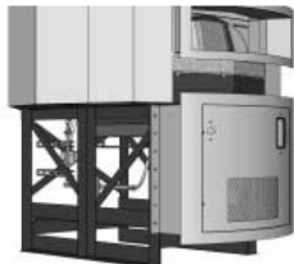


Put the stone in place and apply light pressure to seat it properly. Make sure that the angle in the granite lines up with the angle in the bracket. Allow the sealant to set for several hours before filling any gap between the stone slab and the metal bracket with the silicone sealant (provided). Clean up any sealant before it dries.

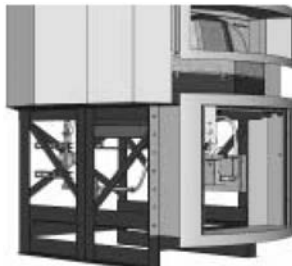




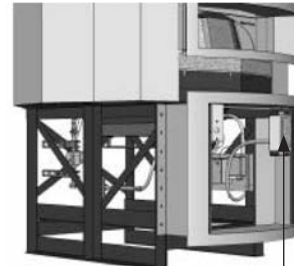
OPTIONAL LOWER EXTENSION, THROTTLE ROD AND CONTROLLER ASSEMBLY INSTRUCTIONS



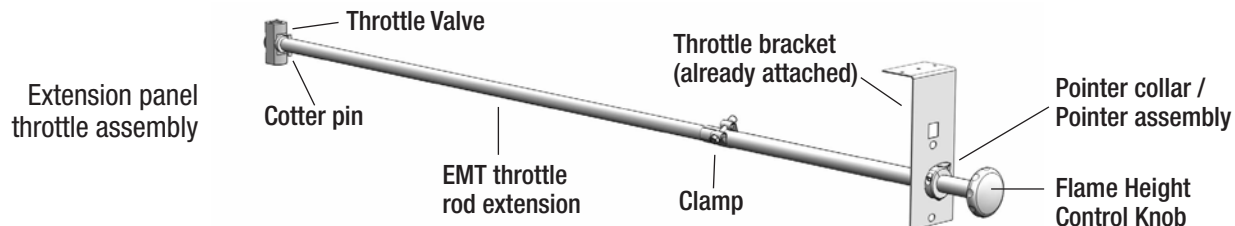
1. After the oven has been leveled, remove the throttle rod assembly which has been attached to the inside of the stand for shipping. Position the lower extension assembly onto the front of the oven. It will rest on the guides that are welded to the oven legs. Attach the assembly to the oven legs using the 1/4-20 nuts, bolts and washers.



2. Remove the access panel.



3. Attach the controller to the mounting bracket of the extension using the 1/4-20 bolts provided.

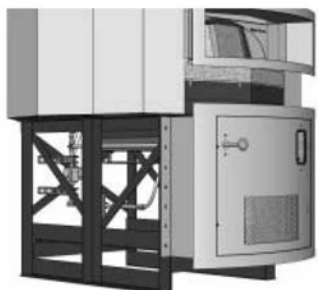


4. Remove the throttle knob/pointer section from the throttle assembly. Slip the clamp off of the throttle knob assembly and slide it over the EMT throttle rod extension. Slip the front of the EMT throttle rod through the throttle rod bracket at the front of the oven, then slip the other end of the EMT onto the throttle valve at the back of the oven. **Note:** The end of the EMT that goes over the throttle valve is drilled to accept a cotter pin. Attach the EMT throttle rod extension to the throttle valve using the cotter pin and open the end of the pin slightly to prevent it from falling out. **Make certain the valve is in the full open position by turning the attached throttle rod extension counterclockwise until it stops.**

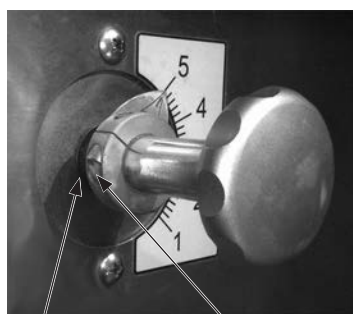
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OPTIONAL LOWER EXTENSION, THROTTLE ROD AND CONTROLLER ASSEMBLY INSTRUCTIONS



5. Pass the throttle rod through the throttle bracket (already attached). Position the pointer in approximately the 2 o'clock position. Slide the clamp on the EMT over the end of the throttle rod/knob assembly and Attach the throttle rod to the EMT throttle rod extension using the compression clamp. On curved façade extensions, make to leave at least 3 mm (1/8") of space between the end of the pointer and the bracket when it is set to a horizontal position.
6. Reinstall the front panel. Secure the controller with a 1/4-20 screw at the top and bottom. Use (2) #10 stainless steel sheet metal screws to secure the front panel to the throttle bracket.

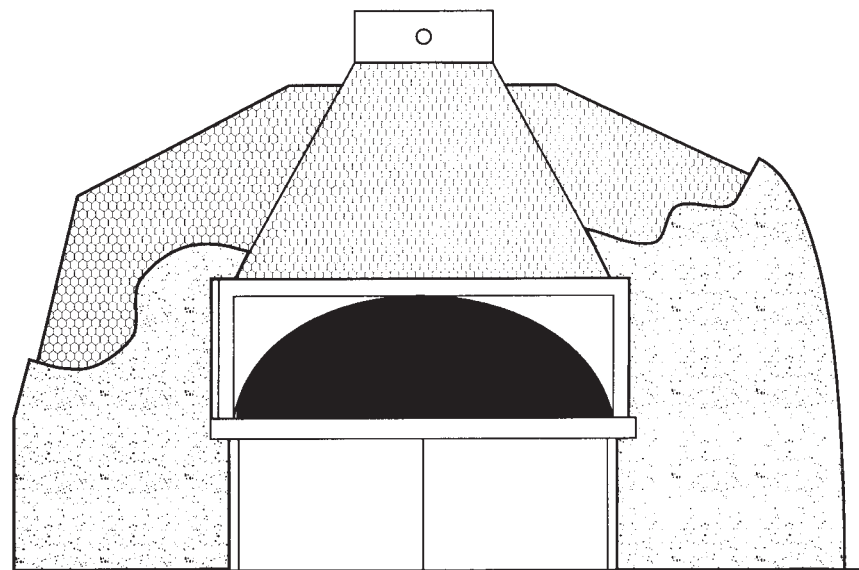


7. CALIBRATING THE POINTER

Loosen the pointer collar set screws using a 3/16" Allen wrench. Position the attached pointer to "5" on the Flame Height Index Scale. Tighten the pointer collar in this position. Make certain the tip of the pointer is at least 3 mm (1/8") away from the index scale at the tightest point of the rotation of the knob so it does not scrape.

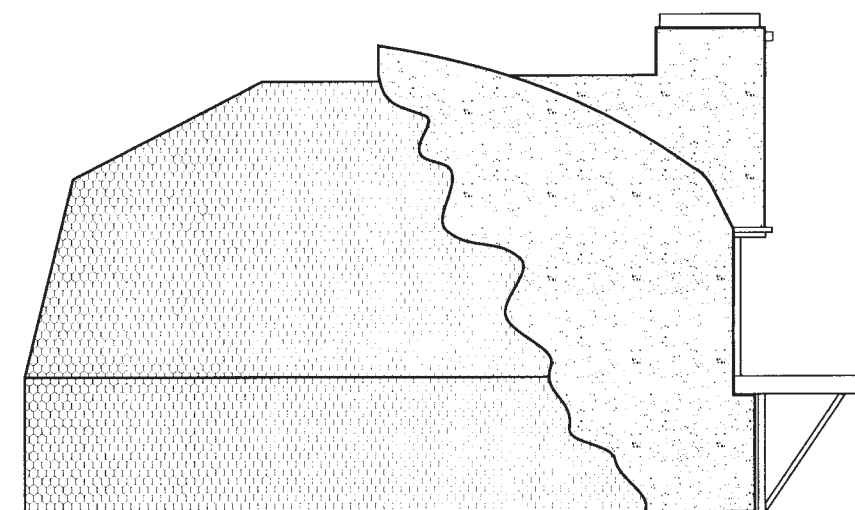
3 mm (1/8")
minimum clear-
ance

Pointer collar set screws



Front View

NOT TO SCALE



Side View

t NOT TO SCALE

This figure depicts the application of stucco on a Wood Stone appliance.

Use no less than 25 mm (1") of stucco coating to cover all exposed metal lathing on the appliance.

Maintain a minimum of 152 mm (6") clearance from top and 25 mm (1") from side of the appliance to all combustible surfaces.

TRADITIONAL STUCCO MIX

1 part masonry cement
1 part regular cement
5 parts sand

Stucco premix is available at your local lumber yard or building supply store.

Follow stucco manufacturer's instructions for correct mixing information.

MINIMUM STUCCO APPLICATION IS 25 mm (1")



GAS



DO NOT USE FLAME TO TEST FOR LEAKS

Wood Stone Gas ovens are equipped with a 3/4" (19 mm) female ISO-7 gas connection. **Have a licensed gas installer provide the hookup and test all fittings and pipe connections for leaks.** Use approved gas leak detectors (soap solutions or equivalent) over and around the fittings and pipe connections.

SV-1 AND SV-2 ARE THE GAS CONTROL VALVES THAT OPERATE THE UNDERFLOOR INFRARED BURNER AND THE INTERIOR RADIANT BURNER, RESPECTIVELY.

NOTE: RFG models are only equipped with the SV-2 valve. SV-1 is located directly behind the service/ intake panel and in front of the underfloor IR burner. SV-2 is located under the oven to the rear left.

The manifold pressure test port for the underfloor IR burner (served by SV-1) is a plugged nipple tap located near the left end of the burner manifold. The manifold pressure test port for the radiant burner (served by SV-2) is a plugged nipple tap located at the base of the T-junction between the SV-2 and the radiant/interior burner. Both gas valves (SV-1 and SV-2) have an additional plugged nipple tap on the inlet side. The burner manifold pressures have been adjusted and tested at the factory.

Wood Stone recommends that the oven be equipped with an individual shutoff valve and that this individual shutoff valve (supplied by others) be left easily accessible. Wood Stone also recommends that inspection and maintenance of the burners and gas piping connections of this appliance be performed at regularly scheduled intervals and only by professional gas appliance service agencies.

SCOPE OF APPROVALS

NATURAL GAS (METHANE)

G20 @ 20mbar - I_{2H}(20) for use in:

AT, BG, CZ, DK, EE, FI, GR, HR, HU, IS, IE, IT, LV, LT, NO, PT, RO, SK, SI, ES, SE, CH, TR and GB

I_{2E}(20/25) for use in: DE, LU and PL

I_{2E+}(20/25) for use in: Be and Fr

I_{2L}(25) for use in: NL

I_{2HS}(25) for use in: HU

PROPANE AND PROPANE BLENDS

I_{3P}(37) for use in: FI, DE, GR, IE, HR, LU, NL, PL, SK, SI, ES, CH, TR and GB

I_{3P}(50) for use in: CY, CZ, MT and SK

I₃₊(28-30,37) for use in: BE, CY, CZ, EE, FR, GR, IE, IT, LT, LU, LV, PT, RO, SK, ES, CH and GB

I_{3B/P}(30) for use in: BG, CY, CZ, DK, EE, FI, GR, HR, LV, LT, LU, MT, NL, NO, SK, SI, SE and TR

I_{3B/P}(37) for use in: PL

I_{3B/P}(50) for use in: AT, DE, HU, SK and CH



ELECTRICAL

Have a licensed electrician connect the transformer terminal strip to a 230 VAC, 5 A circuit. Electrical diagrams are located on the back of the removable service/air intake panel of the appliance and also at the end of this manual.

PROVIDE DISCONNECT DEVICE: This appliance must be provided with an all-pole type disconnect device in the incoming power supply so that the appliance can be completely isolated from the power supply.



THIS APPLIANCE MUST BE ELECTRICALLY GROUNDED.

EN 437 Gas Group	I _{2H} , I _{2E} , I _{2L} , I _{2ELL}	I _{2L}	I _{3B/P} , I ₃₊	I _{B/P}	I _{3P}
Inlet Pressure (mbar)	20	25	28-30/37	50	30/37/50

Model	Declared Input (kW)			
	I _{2H} , I _{2L} , I _{2E} , I _{2ELL}	I ₃₊	I _{3B/P}	I _{3P}
WS-MS-4-RFG-CE	20	17.6	17.6	17.6
WS-MS-4-RFG-IR-CE	33.7	29.9	29.9	29.9
WS-MS-5-RFG-CE	30.8	27.5	27.5	27.5
WS-MS-5-RFG-IR-CE	55.1	46.6	46.6	46.6
WS-MS-6-RFG-CE	30.8	27.5	27.5	27.5
WS-MS-6-RFG-IR-CE	55.1	46.6	46.6	46.6
WS-MS-7-RFG-CE	36	41.6	41.6	41.6
WS-MS-7-RFG-IR-CE	64.5	66.5	66.5	66.5

Model	Valve Outlet Pressure							
	I _{2H} , I _{2L} , I _{2E} , I _{2ELL}		I ₃₊		I _{3B/P}		I _{3P}	
	SV-1	SV-2	SV-1	SV-2	SV-1	SV-2	SV-1	SV-2
WS-MS-4-RFG-CE		12.4		13.6		13.6		17.4
WS-MS-4-RFG-IR-CE	8.7	12.4	17.5	13.6	17.5	13.6	22.4	17.4
WS-MS-5-RFG-CE		11.8		15.6		15.6		20
WS-MS-5-RFG-IR-CE	8.7	11.8	17.5	15.6	17.5	15.6	22.4	20
WS-MS-6-RFG-CE		11.8		15.6		15.6		20
WS-MS-6-RFG-IR-CE	8.7	11.8	17.5	15.6	17.5	15.6	22.4	20
WS-MS-7-RFG-CE		11.5		18.4		18.4		22.7
WS-MS-7-RFG-IR-CE	8.7	11.5	17.9	18.4	17.9	18.4	22.9	22.7



Wood Stone ovens should be vented in accordance with pertinent national, regional and local codes concerning such appliances; check venting plans with the authority having jurisdiction before proceeding with installation.

The above statement taking precedence, Wood Stone Corporation recommends the following two venting options:

1. The Wood Stone MS Series ovens can be vented as a Type A appliance (with no flue connection), designed to be installed under an exhaust hood (canopy). The hood must be a Type 1 (grease rated) hood connected to a (grease rated) duct system. The venting system must be designed and installed in accordance with all relevant codes pertaining to grease and smoke producing commercial cooking appliances. Ovens that utilize solid fuel must be vented separately from any non-solid fuel burning appliances. There may be requirements for interlocking the oven or its gas supply with the ventilation system. Check with your local code official. Airflow should be adjusted according to the requirements specified by the hood manufacturer and/or local codes.

OR

2. The oven is also approved as a Type B₁₁ appliance, designed to be connected directly to a chimney which is installed in accordance with all relevant local and national codes. The chimney system must be installed and constructed to the same requirements as a duct that serves grease and smoke producing commercial cooking appliances. If venting the oven with this method, the oven must be vented independently of other equipment. A suitable fan should be used at the end of the duct run to ensure proper draft in all conditions. Wood Stone does not recommend using an in-line type fan. When installed, the fan speed/air flow should be adjusted to attain the appropriate duct pressure at the oven flue collar:

DUCT PRESSURE

For gas-fired ovens without solid fuel: 0.25 mbar, (0.1" W.C.)

For any oven utilizing solid fuel: 0.35 mbar, (0.14" W.C.)

This pressure may be checked by inserting the pressure test probe up through the oven doorway to the point where the duct is connected to the oven flue collar.

FAN TEMPERATURE RATING

The fan must also be of a suitable temperature rating.

For gas-fired ovens without solid fuel the fan must be rated for a minimum of 150 °C (300 °F) continuous.

INTERLOCK SYSTEM

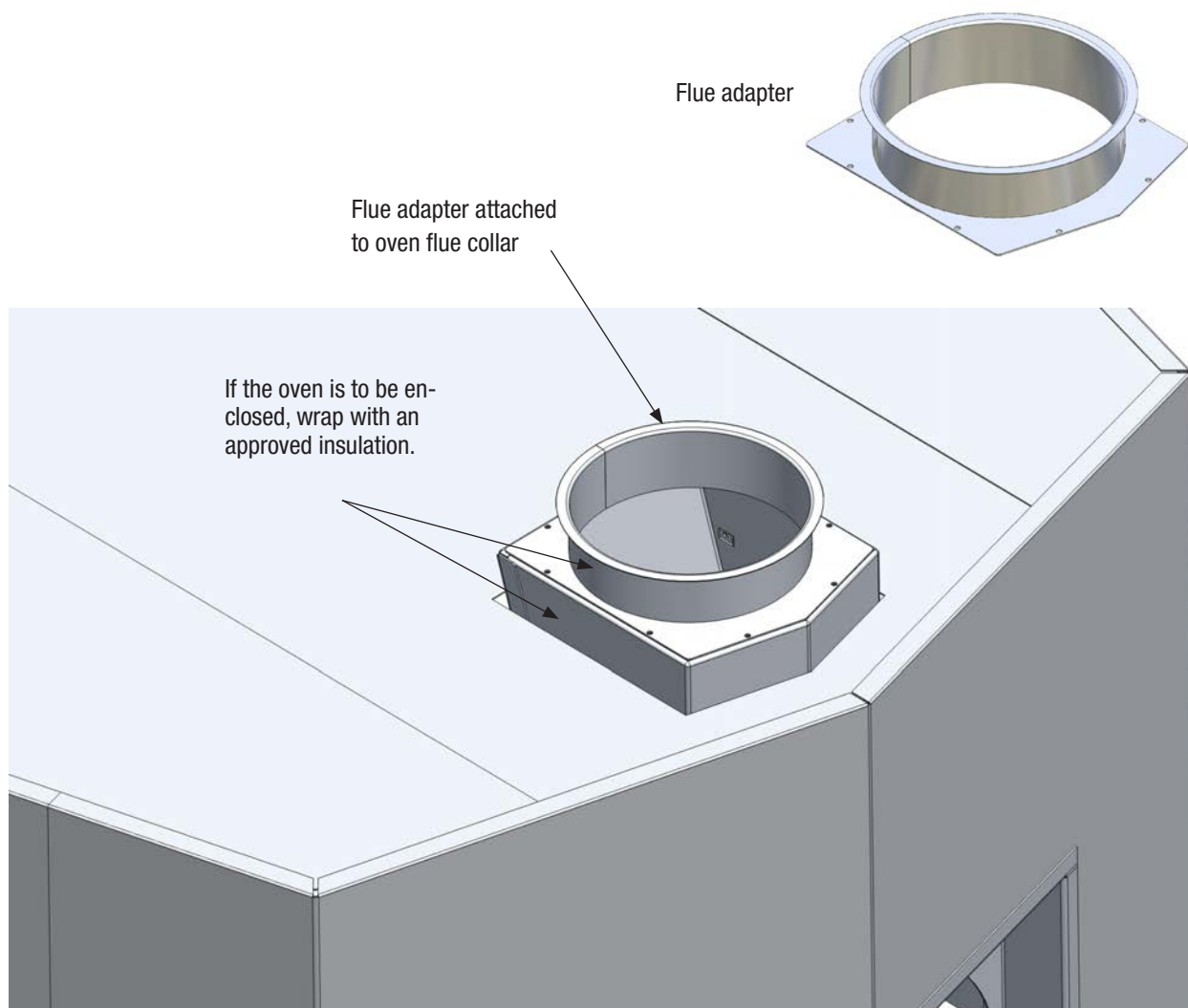
There may be requirements for interlocking the oven or its gas supply with the ventilation system. Check with your local code official.



MOUNTAIN SERIES OVENS: FLUE ADAPTER

The flue adapter unit is designed to facilitate connection to a round duct. Use the stainless steel screws and sealant provided to attach the flue adapter to the exhaust outlet on the oven if it is not already installed. Note: MS-4 ovens come standard with a round 203mm (8") collar and do not require the flue adapter for a direct connection.

Note: If using a Selkirk or other modular-type duct, attach according to the manufacturer's instructions. Otherwise, the duct must be attached with a full perimeter weld. All duct must be grease-rated duct. If the oven is going to be enclosed, the flue adapter and exhaust outlet must be wrapped with an insulating material approved for use with a grease-duct.





VENTING DO'S AND DON'TS

When installing a Wood Stone Mountain Series oven there are some basic guidelines to follow regarding oven venting that will help ensure proper operation and performance of the gas burners on the oven. These guidelines will also help prevent damage to the oven's gas and electrical components due to improper venting and installation. Damage caused by improper venting and installation is not covered by the oven warranty. This information applies to all Wood Stone Mountain Series (MS) ovens equipped with 1 or more gas burners.

Most Wood Stone Mountain Series ovens are built into some sort of wall structure or enclosure. This creates the potential for different venting scenarios that can be detrimental to the operation and performance of the oven burners. Here are some basic rules that to follow that will ensure a properly functioning oven installation. Illustrated examples are included on the following pages.

RULE 1

The **ONLY** pathway for air to enter the space beneath the oven should be at the front of the oven at the perforated opening in the oven service panel provided with the oven, or on ovens equipped with an optional storage box, through the perforations provided on the oven storage box. This will eliminate the chance of air movement or cross drafts beneath the oven that can disrupt the oven burners.

RULE 2

DO NOT block the flow of air through the front service panel. It is required to provide necessary combustion air to the oven burners. Airflow and service access **MUST** be provided from the front of the oven only at this service panel. **DO NOT** relocate the oven air intake (see Rule 1).

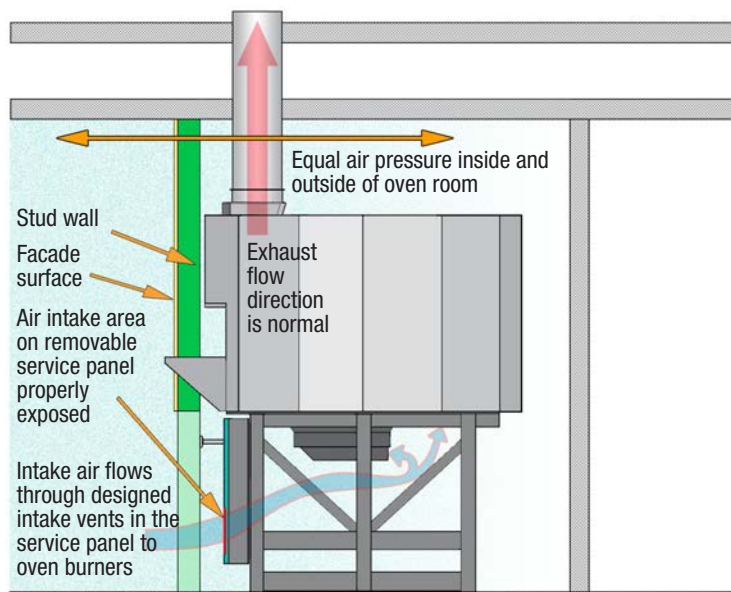
RULE 3

To ensure proper venting of the oven, you must use an appropriate exhaust fan as described in this manual. There must also be an adequate source of make-up air provided to your kitchen space (the room that the oven opens into). The make-up air supply should not point directly at the oven. Other than the oven service panel, do not provide make-up air or other ventilation into an enclosure that surrounds the oven (see Rule 1). Without proper make-up air the oven, (or any gas equipment) will not vent and operate correctly.

Please see drawings on the following pages.

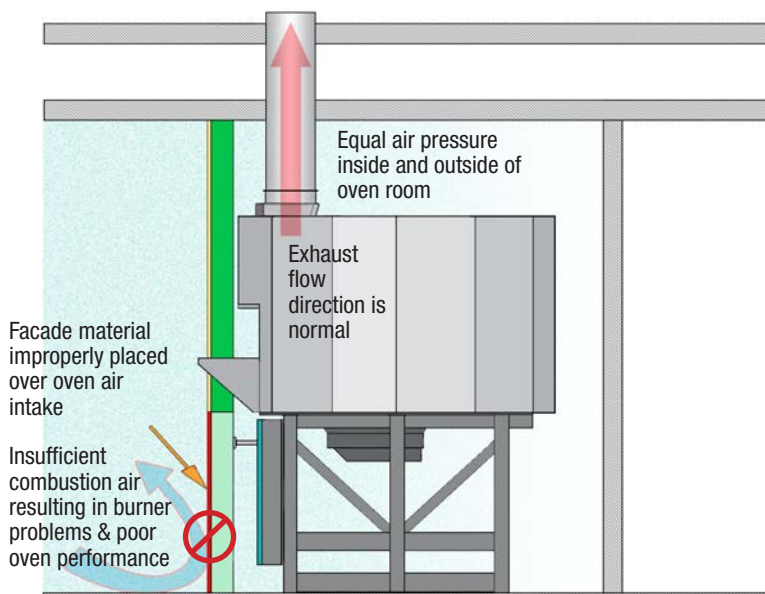


DIRECT CONNECT VENTING EXAMPLES



1 Acceptable venting

Example 1 shows a proper installation. Enclosure around the oven is completely sealed so that the only air entering the space beneath the oven comes through the oven service panel.



2 Unacceptable venting

Example 2 is not acceptable because the combustion air intake is blocked, preventing combustion air from reaching the oven burners. The burners will not function properly, and this will also lead to damage of oven components.

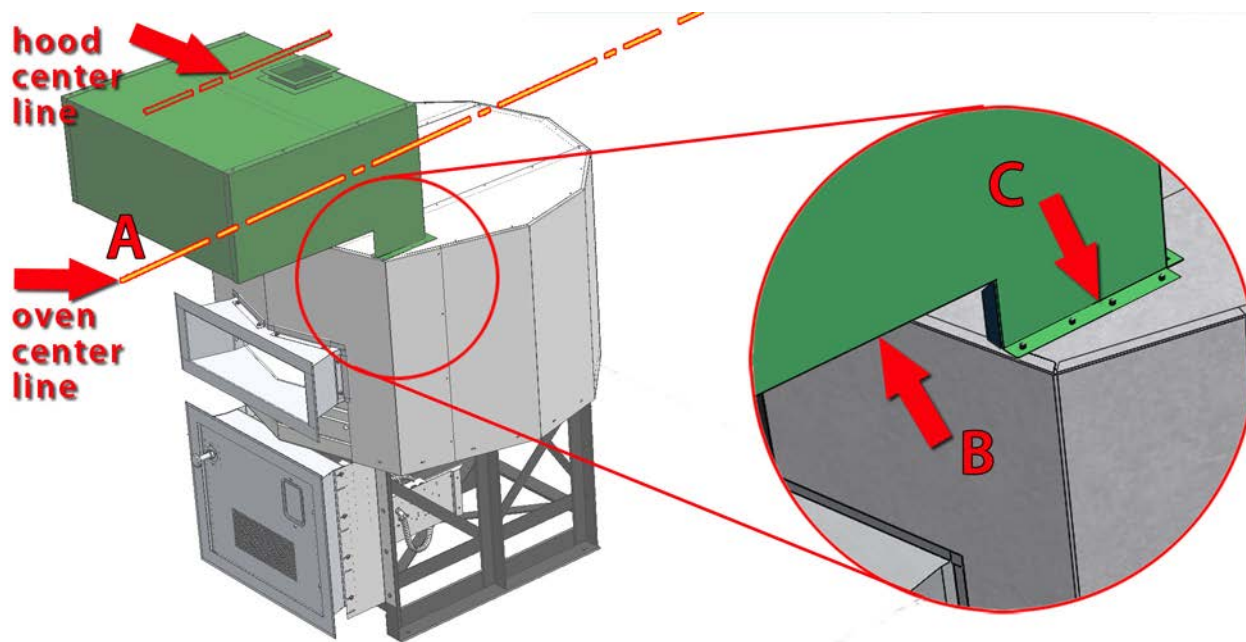


HOOD INSTALLATIONS

In addition to the information given for installations using the direct connect venting method, the following information applies to installations where the oven is being vented using a Type 1 hood. Also refer to the OVEN VENTING section earlier in this manual.

PROPER MOUNTING POSITION FOR THE WOOD STONE HOOD

1. Center the hood from side to side on the oven. Note that in an MS-5, 6 or 7 model, the oven has the round flue adapter attached. The adapter may prevent the proper positioning of the hood. The flue adapter is attached with screws. (The MS-4 does not require an adapter.) Simply remove the screws to remove the adapter if it is in the way.
2. Pull the hood forward so that the notch, as viewed from the side of the hood, lines up with the front edge of the top of the oven.
3. Secure the hood to the top of the oven using #10 self tapping screws. The flanges on the hood are pre-drilled. Screw directly into the top of the oven to secure the hood.
4. Attach grease-rated duct to the outlet on the hood. The hood captures over the oven flue collar and oven doorway. No connection is made to the oven flue collar.

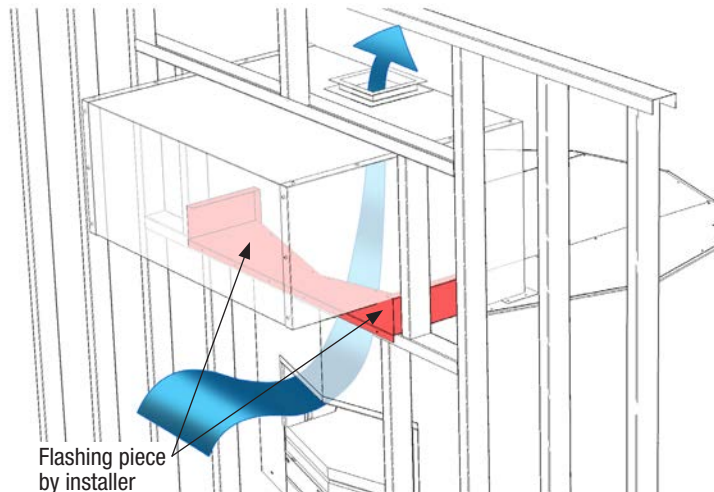


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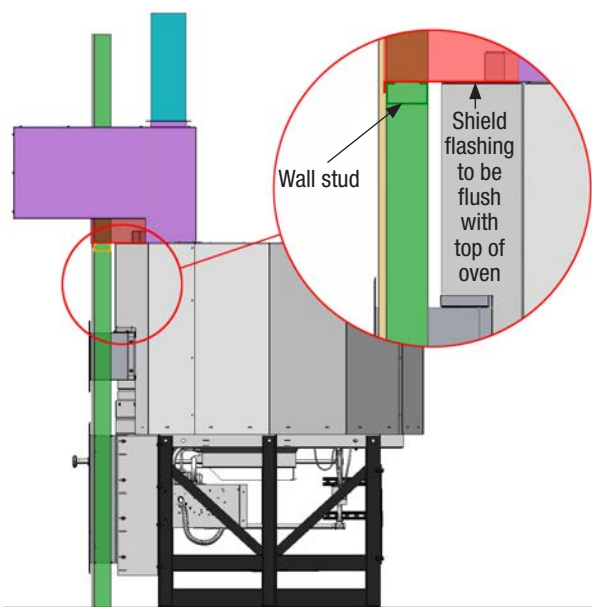


HOOD INSTALLATION WITH DECORATIVE FACADE WALL/OVEN ENCLOSURE

For installations where a hood is being used with a decorative facade wall or oven enclosure, it will be necessary to both seal the gap between the facade wall and the top of the oven, and the gaps at the sides of the hood between the facade wall and the front of the oven. This will prevent air from being pulled up the sides of the oven from below by the hood. It will also prevent debris, etc. from falling into the facade wall.



Acceptable venting

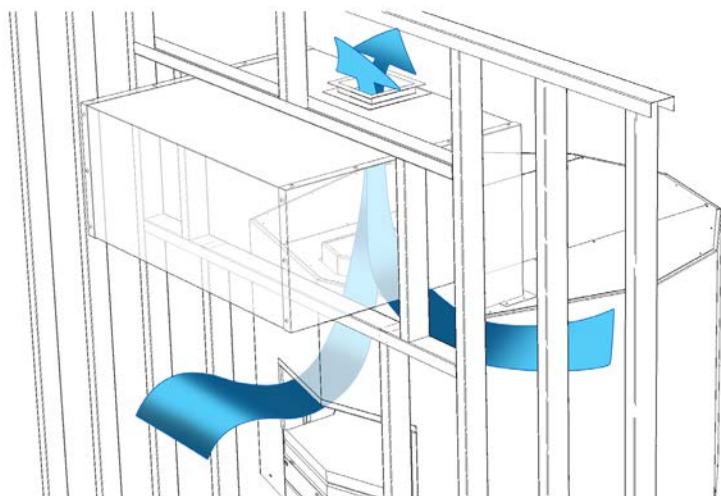


Additional flashing detail

Note that the hood does extend out beyond the face of the oven. DO NOT extend the oven facade wall into the oven hood. The wall beneath the hood must stop at the top of the oven. To allow for proper function of the hood, filter removal and hood maintenance you must provide a minimum of 203mm (8") of clearance between the front face of the facade wall and the front of the hood.

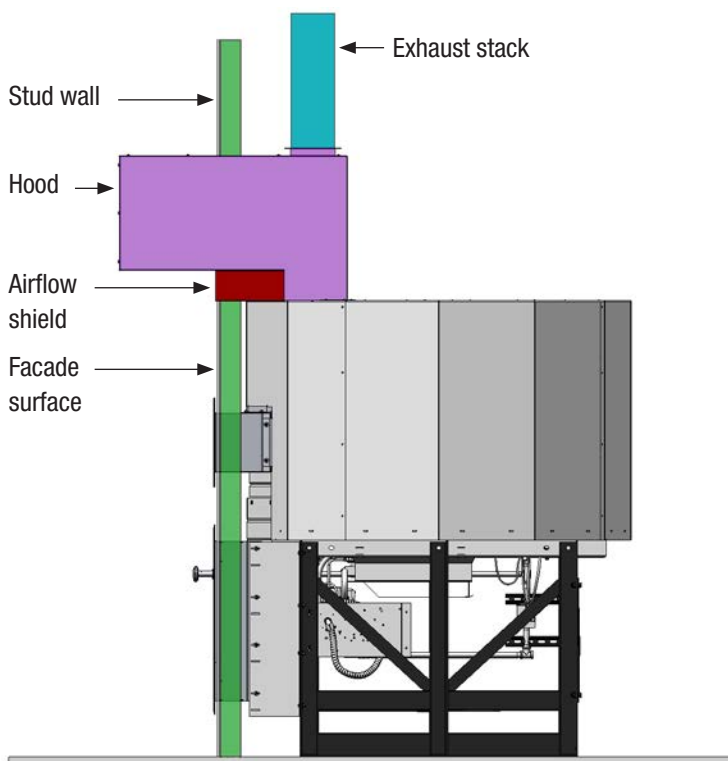
Acceptable venting

Continued on next page



Incorrect installation. No flashing installed so air being pulled up the sides of the oven from beneath.

Unacceptable venting



Side view of properly installed hood

Acceptable venting



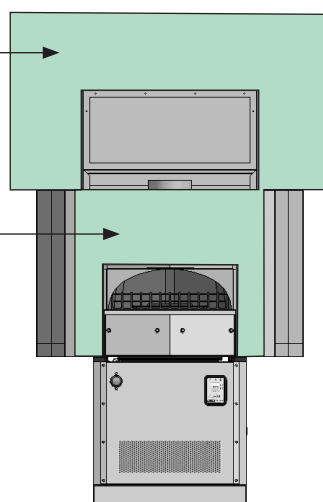
CLEARANCES

The Type 1 hood requires an 457 mm (18") clearance to combustible construction. Clearances to limited combustibles may be reduced per NFPA 96 and/or your local codes. Approved clearance reduction methods may also be used, per NFPA 96 and/or your local codes. (These reductions are applicable to the hood and/or duct only, NOT to the oven.) Consult with your local inspector regarding approved methods.

Any facade wall 152 mm (6") to either side of the oven doorway and above **MUST** be of non-combustible construction with no exceptions.

457 mm (18") clearances for hood, or in accordance with hood manufacturer's instructions and/or local codes.

152 mm (6") from either side of doorway and the area above (as shown) must be of non-combustible construction.

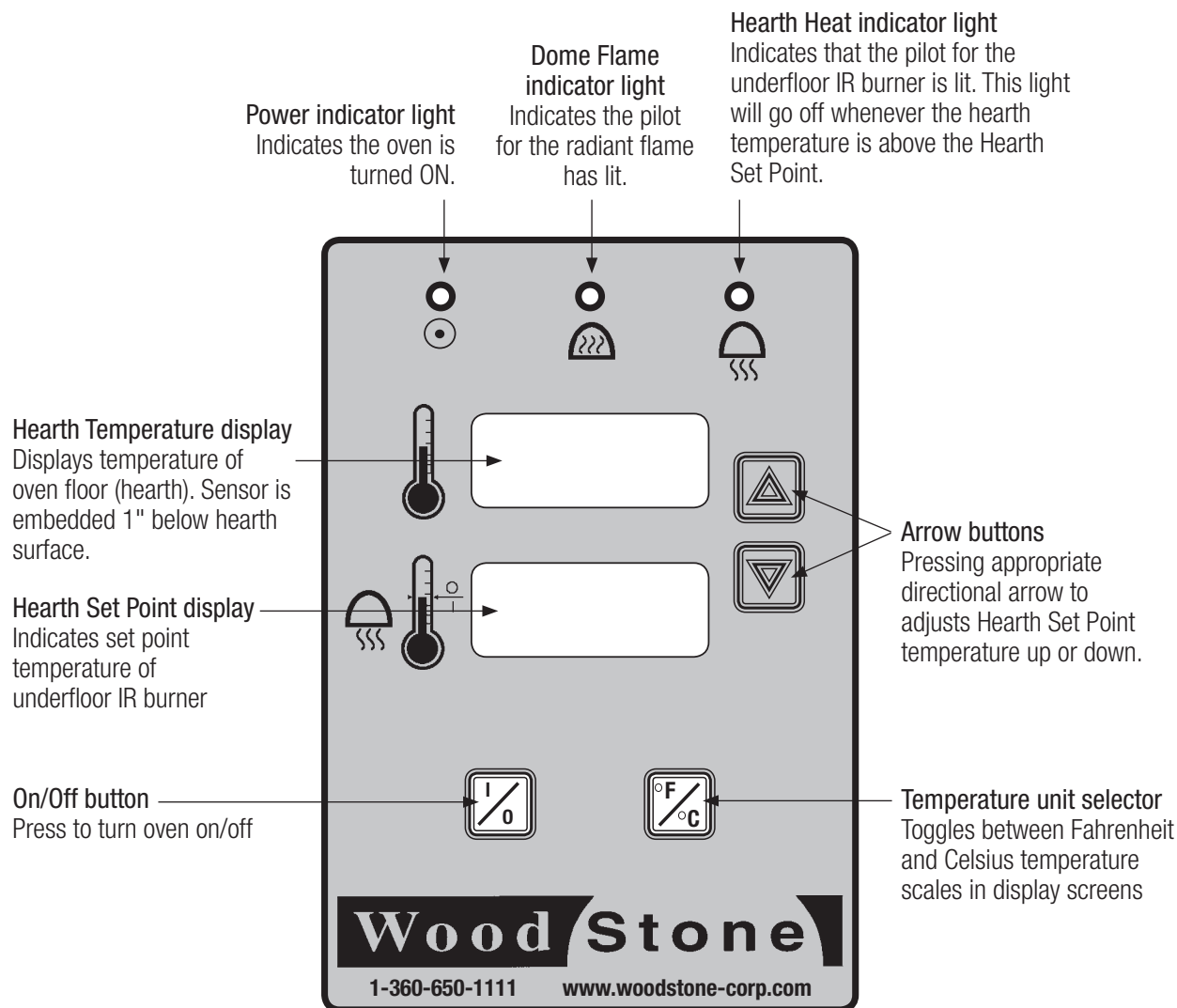


Shaded areas must be of non-combustible construction.

All installations subject to the approval of the local authority having jurisdiction. Wood Stone recommends you submit your venting plans in advance to your local authority for approval.



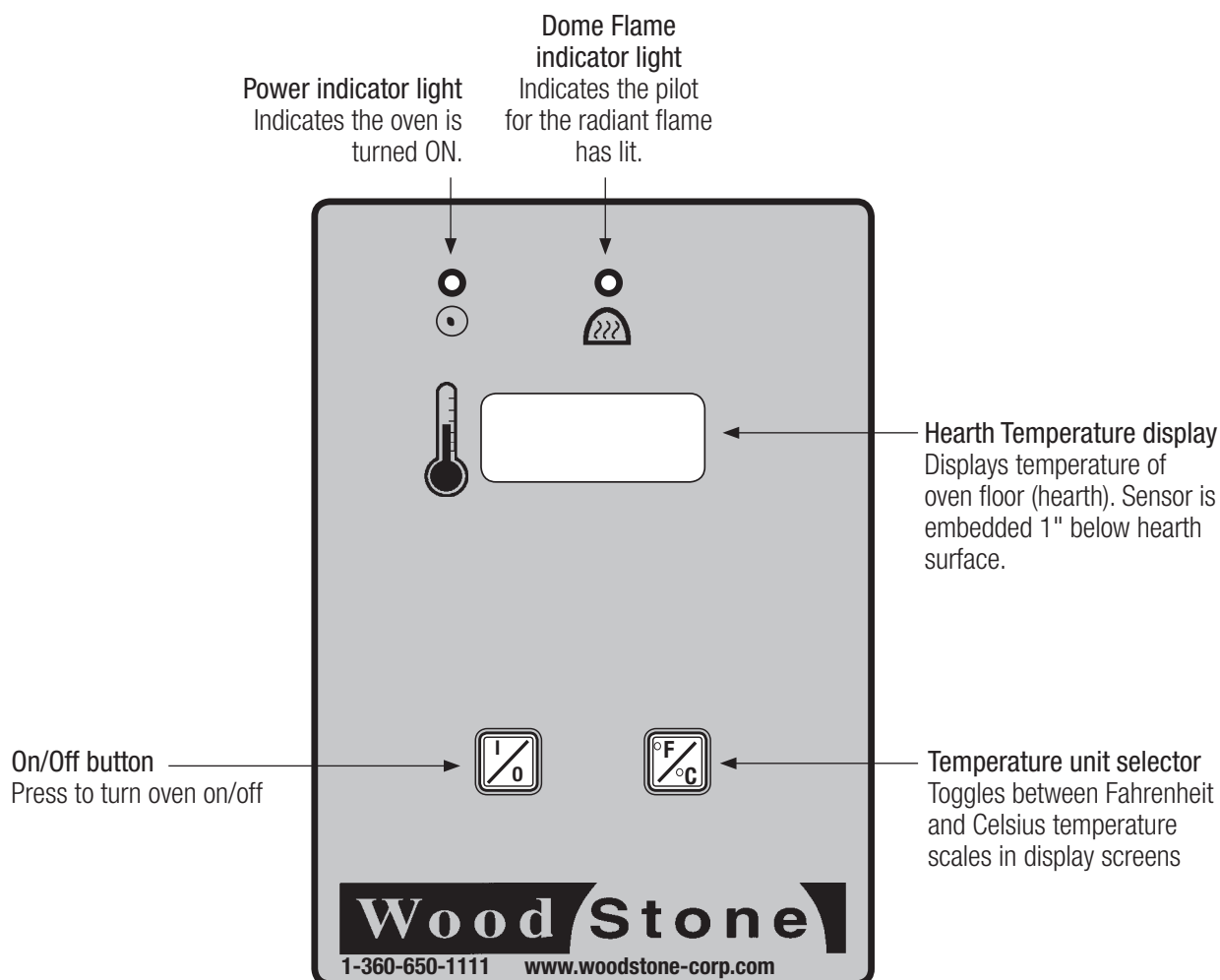
RFG-IR CONTROLLER





TYPE 2 CONTROLLER

Used on RFG models shipped before August 2005. See next page for newer controller.





TYPE 4 CONTROLLER

Used on RFG ovens shipped after August 2005.

Hearth Temperature

The hearth (floor) temperature will be displayed when the oven is turned on. Display will read "LO" when the temperature is below 38 °C (100 °F).



Temperature units

Press and hold to switch between Fahrenheit and Celsius.

ON/OFF button

Press to turn oven on and off.



INITIAL OVEN START-UP PROCEDURE

IMPORTANT: If at any time you feel that either or both of the burners are not operating properly, turn the oven off and call for service. Before servicing, disconnect the electrical supply at the breaker and turn off the gas supply at the appliance's individual gas shutoff valve. In the event of a power failure, no attempt should be made to operate the oven.

Your oven was cured at the factory. However in the course of shipment, storage on site, etc. the ceramic materials will have absorbed moisture. It is critical that the procedure below be followed to ensure that this moisture is driven from the ceramic in a controlled fashion. This will minimize cracking and prevent damage to the oven that could otherwise occur by bringing the oven to temperature rapidly the first time it is used. This initial procedure need only be followed the first time the oven is fired and/or if the oven has not been used for an extended period of time.

BEFORE GETTING STARTED

1. Make sure main gas supply is on (valve parallel with gas line).
2. Make sure that the venting system has been tested and approved for operation and is on.

FIRST DAY

1. Remove the Night Heat Retention Door(s). Push the ON/OFF button on controller. It may take awhile for the gas to purge all the air from the gas lines.
2. Allow oven to operate at the factory settings for 1 hour (Hearth Set Point at 38 °C (100 °F), radiant flame at its lowest setting). Leave the Hearth Set Point at 38 °C (100° F) throughout the entire first day.
3. After one hour, raise radiant flame to 25% (~16 cm (6") flame, "2" on the Flame Height Index Scale) using the Flame Height Control Knob. Hold this setting for 4 hours.
4. After 4 hours at 25% flame, raise to 50% flame (~20 cm (8") flame, "3" on the Flame Height Index Scale) using the Flame Height Control Knob and hold for at least another 4 hours or until the temperature reaches 260 °C (500 °F).
5. Once the temperature reaches 260 °C (500 °F) the oven is ready for use. If you will be shutting the oven down, see the instructions that follow.

TURNING OFF THE OVEN

1. Push ON/OFF button. All gas will go off. Put the Night Heat Retention Door(s) in place to retain heat.

NOTE: Always wait 5 minutes before restarting the oven. **Never run the oven with the Night Heat Retention Door(s) in place.**

NOTE: Small "crazing" cracks will occur with normal heating and cooling. They will not effect the performance or durability of the oven. If cracks of 1/8" or more develop, contact Wood Stone for evaluation.

NEVER PLACE ANYTHING IN OR ABOVE THE RADIANT FLAME



GENERAL DAILY OVEN OPERATION

END OF THE DAY

1. Push I/O button, all gas will go off, even the pilots.
2. Put oven door in place to retain heat.

BEGINNING OF THE DAY

1. Remove oven door
2. Push I/O button, set controller to desired floor temperature and turn the radiant flame to its highest setting. Oven should be stabilized at or above the set point within an hour.

OVEN INTERIOR CLEANING

Wood Stone recommends the use of long-handled brushes for sweeping up surface debris that will accumulate on the floor of the oven during use. Use a natural fiber brush—always brushing away from the radiant burner well. For deeper cleaning, use a brass bristled brush. The oven floor can be then cleaned with a damp rag wrapped around the brass bristled brush head. (Wood Stone offers an assortment of oven brushes available through your dealer. Specification sheets may be viewed on the Wood Stone website under Tools & Accessories.)

HOW TO READ FLOOR TEMPERATURE



The floor temperature is continuously displayed by the controller in the upper window. This reading is being taken by a thermocouple about an inch below the floor surface, so the actual surface temperature may be somewhat different, and is best measured using a non-contact (IR) thermometer.

HOW TO ADJUST THE FLOOR TEMPERATURE (HEARTH SET POINT)



To adjust the oven's thermostatic floor temperature setting, simply press the arrow button corresponding to the direction in which you would like the setting to go. If the thermostatic set point is raised above the actual hearth temperature, the underfloor IR burner should activate.



NEVER PLACE ANYTHING IN OR ABOVE THE RADIANT FLAME



DETAILED DAILY OVEN OPERATION FOR RFG-IR MODELS ONLY

IMPORTANT: If at any time you feel that either or both of the burners are not operating properly, turn the oven off and call for service. Before servicing, disconnect the electrical supply at the breaker and turn off the gas supply at the appliance's individual gas shutoff valve. In the event of a power failure, no attempt should be made to operate the oven.

DAILY STARTUP

Press the I/O button to start the oven. The radiant burner will ignite. The infrared underfloor IR burner will ignite if the actual floor temperature is below the set point temperature to which the controller is adjusted.



GREEN LIGHT: Indicates the system is energized.



GREEN LIGHT: Indicates the pilot flame for the radiant burner is lit.



GREEN LIGHT: Indicates that the pilot flame for the underfloor IR burner is lit.

This light will go off whenever the actual floor temperature is above the Hearth Set Point.

TURNING OFF THE OVEN

Push the I/O button on the controller to turn the oven off.

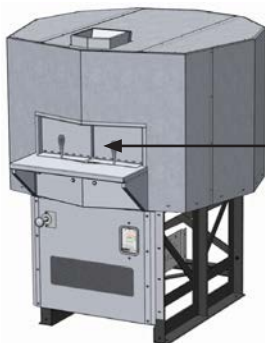
Both burners will go out and the digital readout on the controller will go out.

ADJUSTING THE RADIANT (DOME) FLAME

To adjust the radiant flame: The radiant flame is always on (when the oven is operating) and can be adjusted to any flame intensity between its highest and lowest setting. Simply turn the knob located to the lower left of the doorway, beneath the mantle. This burner is the primary heat source for the oven. The infrared under floor burner will act as an assist, to maintain desired floor temperatures during periods of high food production.

ADJUSTING THE FLOOR SET-POINT

To adjust the oven's thermostatic floor temperature setting, simply press the arrow button corresponding to the direction in which you would like the setting to go. If the thermostatic set point is raised above the actual hearth temperature, the underfloor IR burner should activate. * It is only possible to program the floor's thermostatic Hearth Set Point to temperatures from 93 °C to 426 °C (100–800 °F). Once proper temperatures for your application have been established, there should be little or no need to change the Hearth Set Point.



Night Heat Retention Doors

NOTE: Never operate this appliance with the stainless steel Night Heat Retention Door in place. It should only be used when the oven is turned off.



INITIAL OVEN START-UP PROCEDURE

IMPORTANT: If at any time you feel that either or both of the burners are not operating properly, turn the oven off and call for service. Before servicing, disconnect the electrical supply at the breaker and turn off the gas supply at the appliance's individual gas shutoff valve. In the event of a power failure, no attempt should be made to operate the oven.

Your oven was cured at the factory. However in the course of shipment, storage on site, etc. the ceramic materials will have absorbed moisture. It is critical that the procedure below be followed to ensure that this moisture is driven from the ceramic in a controlled fashion. This will minimize cracking and prevent damage to the oven that could otherwise occur by bringing the oven to temperature rapidly the first time it is used. This initial procedure need only be followed the first time the oven is fired and/or if the oven has not been used for an extended period of time.

BEFORE GETTING STARTED

1. Make sure main gas supply is on (valve parallel with gas line).
2. Make sure that the venting system has been tested and approved for operation and is on.

FIRST DAY

1. Remove the Night Heat Retention Door(s). Push the ON/OFF button on controller. It may take awhile for the gas to purge all the air from the gas lines.
2. Allow oven to operate at the factory settings for 1 hour with the radiant flame at its lowest setting.
3. After one hour, raise radiant flame to 25% (~16 cm (6") flame, "2" on the Flame Height Index Scale) using the Flame Height Control Knob. Hold this setting for 4 hours.
4. After 4 hours at 25% flame, raise to 50% flame (~20 cm (8") flame, "3" on the Flame Height Index Scale) using the Flame Height Control Knob and hold for at least another 4 hours or until the temperature reaches 260 °C (500 °F).
5. Once the temperature reaches 260 °C (500 °F) the oven is ready for use. If you will be shutting the oven down, see the instructions that follow.

TURNING OFF THE OVEN

1. Push ON/OFF button. All gas will go off. Put the Night Heat Retention Door(s) in place to retain heat.

NOTE: Always wait 5 minutes before restarting the oven. **Never run the oven with the Night Heat Retention Door(s) in place.**

NOTE: Small "crazing" cracks will occur with normal heating and cooling. They will not effect the performance or durability of the oven. If cracks of 1/8" or more develop, contact your local distributor for evaluation.

NEVER PLACE ANYTHING IN OR ABOVE THE RADIANT FLAME



DETAILED DAILY OVEN OPERATION FOR RFG MODELS

IMPORTANT: If at any time you feel that the burner is not operating properly, **TURN THE OVEN OFF** and call for service. Before servicing, disconnect the electrical supply at the breaker and turn off the gas supply at the appliance's individual gas shutoff valve. In the event of a power failure, no attempt should be made to operate the oven.

DAILY STARTUP

Press the I/O button to start the oven. The radiant flame will ignite.



GREEN LIGHT: Indicates the system is energized.



GREEN LIGHT: Indicates the pilot flame for the radiant burner is lit.

TURNING OFF THE OVEN

Push the I/O button on the controller to turn the oven off. The burner will go out and the digital readout will go blank

ADJUSTING THE RADIANT (DOME) FLAME

To adjust the radiant flame: The radiant flame is always on (when oven is operating) and can be adjusted to any flame intensity between its highest and lowest setting. Simply turn the knob located to the lower left of the doorway, beneath the mantle.

OVEN INTERIOR

Wood Stone recommends the use of long-handled brushes for sweeping up surface debris that will accumulate on the floor of the oven during use. Use a natural fiber brush—always brushing away from the radiant burner well. For deeper cleaning, use a brass bristled brush. The oven floor can be then cleaned with a damp rag wrapped around the brass bristled brush head. (Wood Stone offers an assortment of oven brushes available through your dealer. Specification sheets may be viewed on the Wood Stone website under Tools & Accessories.)



DAILY MAINTENANCE

OVEN INTERIOR

Wood Stone recommends the use of a long-handled, brass bristled brush for sweeping aside excess food particles that will accumulate on the floor of the oven during use. **The oven floor can be cleaned with a damp rag. DO NOT USE ICE OR EXCESSIVE WATER ON THE FLOOR; THIS IS TO PREVENT THERMAL SHOCKING OF THE STONE. NEVER USE ANY TYPE OF CHEMICAL CLEANER ON THE FLOOR AS THEY CAN DAMAGE THE CERAMIC.**

There is a stainless steel curb to prevent food from falling on and thereby obstructing the gas orifices of the radiant flame. **If food gets into the radiant flame well and the flame is visibly obstructed, turn the oven off immediately, and call for service.**

OVEN EXTERIOR

All painted and stainless steel surfaces should be cleaned as necessary using an approved mild detergent, hot water and a soft cloth or sponge. Stubborn residues may be removed using a nonmetallic scouring pad. **When scouring stainless steel surfaces, scrub with the grain of the metal to prevent scratching.**



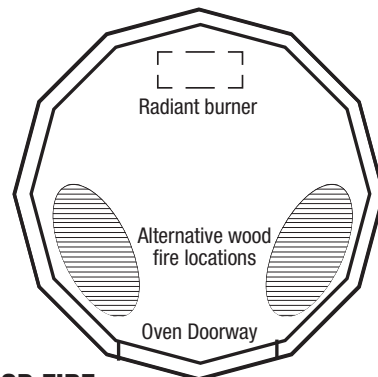
IMPORTANT: DO NOT USE EXCESSIVE AMOUNTS OF LIQUID WHEN WIPING ON OR AROUND THE CONTROL BOX. ALSO DO NOT USE THE RADIANT BURNER WELL AS A DUMP FOR DEBRIS OR TRASH INCINERATION; MAKE EVERY ATTEMPT TO KEEP DEBRIS FROM DROPPING INTO THE WELL.



WS-MS-RFG-W-CE and RFG-IR-W-CE models are approved to allow the burning of wood in the cooking chamber in addition to the gas burners. When burning wood, the fire should be placed to one side of the oven chamber, as close to the door opening as is possible (this is often described as the 8 o'clock or 4 o'clock position). Burn a maximum of 6.8 kg (15 lbs.) of wood per hour. **If flames spill out of the doorway, or the oven temperature exceeds 454 °C (850 °F), you are over firing the oven.**

Make every effort to keep ash and other debris out of the radiant burner well. Do not use the radiant burner as a "backstop" when shoveling ash and/or coals out of the oven. **Burner problems resulting from debris or ash in the burner well will not be covered by the oven warranty.** Using the oven floor brush and ash shovel, move debris only toward the oven doorway and dispose of safely.

NOTE: Ovens burning solid fuel require a more frequent maintenance schedule. Call with questions regarding maintenance frequency.



DO NOT USE THE RADIANT BURNER TO IGNITE WOOD OR SUPPORT THE WOOD FIRE.

The interior floor and dome of the oven do not require creosote or soot removal. The oven flue and exhaust system will require inspection and cleaning. The exhaust system must be inspected and cleaned per the manufacturer's and or local code official's recommendations. **Wood Stone recommends cleaning and inspection at least monthly on any ventilation system serving solid fuel equipment.**

DISPOSE OF ASH PER THE FOLLOWING:

1. Place ashes into a metal container with a tight fitting lid.
2. Place the closed container of ashes on a non-combustible floor or on the ground.
3. Place the closed container of ashes well away from all combustible materials, pending final disposal.
4. Retain the ashes in the closed container until all the cinders have thoroughly cooled. Ashes can then be disposed of safely.

IMPORTANT SAFETY CONSIDERATIONS WHEN BURNING SOLID FUEL

Solid fuel exhaust contains creosote and other substances that accumulate in ducting, creating a risk of fire. The rate of accumulation will vary with respect to flue gas temperature, wood type and moisture content. Frequent, regularly scheduled, thorough flue cleaning is the best way to minimize the risk of flue fires.

CREOSOTE - AND THE NEED FOR ITS REMOVAL

When wood is burned slowly, it produces tar and other organic vapors, which combine with expelled moisture to form creosote. The creosote vapors condense in the relatively cool oven flue of a slow-burning fire. As a result, creosote residue accumulates in the duct. When ignited, this creosote makes an extremely hot fire. The duct serving this oven should be inspected at least twice a month during the first two months of operation, to establish rate of creosote buildup and necessary cleaning schedule. If creosote or soot has accumulated, it should be removed to reduce the risk of a flue fire. The interior floor and dome of the oven do not require creosote or soot removal. The oven flue and exhaust system will require inspection and cleaning.

The exhaust system should be inspected and cleaned per the manufacturer's and or local code official's recommendations. **Wood Stone recommends cleaning and inspection at least monthly on any ventilation system serving solid fuel equipment.**



ESTABLISHING A THERMAL CLEANING SCHEDULE

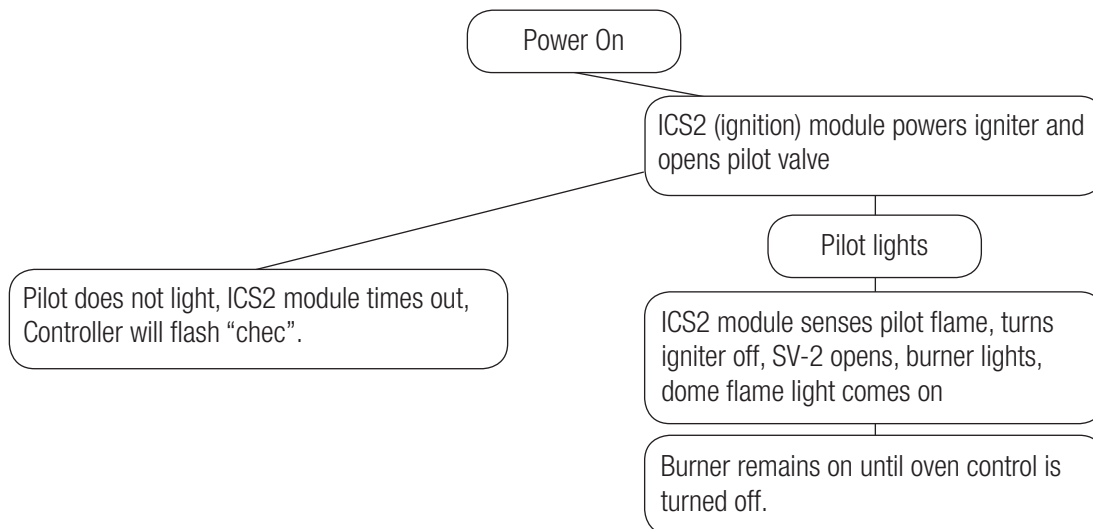
Wood Stone ovens are typically operated at temperatures which preclude the need for cleaning of the interior walls and ceiling (the dome) of the oven. If however, you routinely operate the oven at floor temperatures lower than 232 °C (450 °F) you may notice a buildup on the interior walls and/or ceiling of the oven. If this is the case, use the following procedure to periodically clean the oven. The frequency of thermal cleaning will be determined by the amount of buildup experienced. The amount and rate of buildup will largely be determined by the type of food that is cooked in the oven, and by how long the oven is operated at temperatures low enough to allow buildup to occur.

THERMAL CLEANING

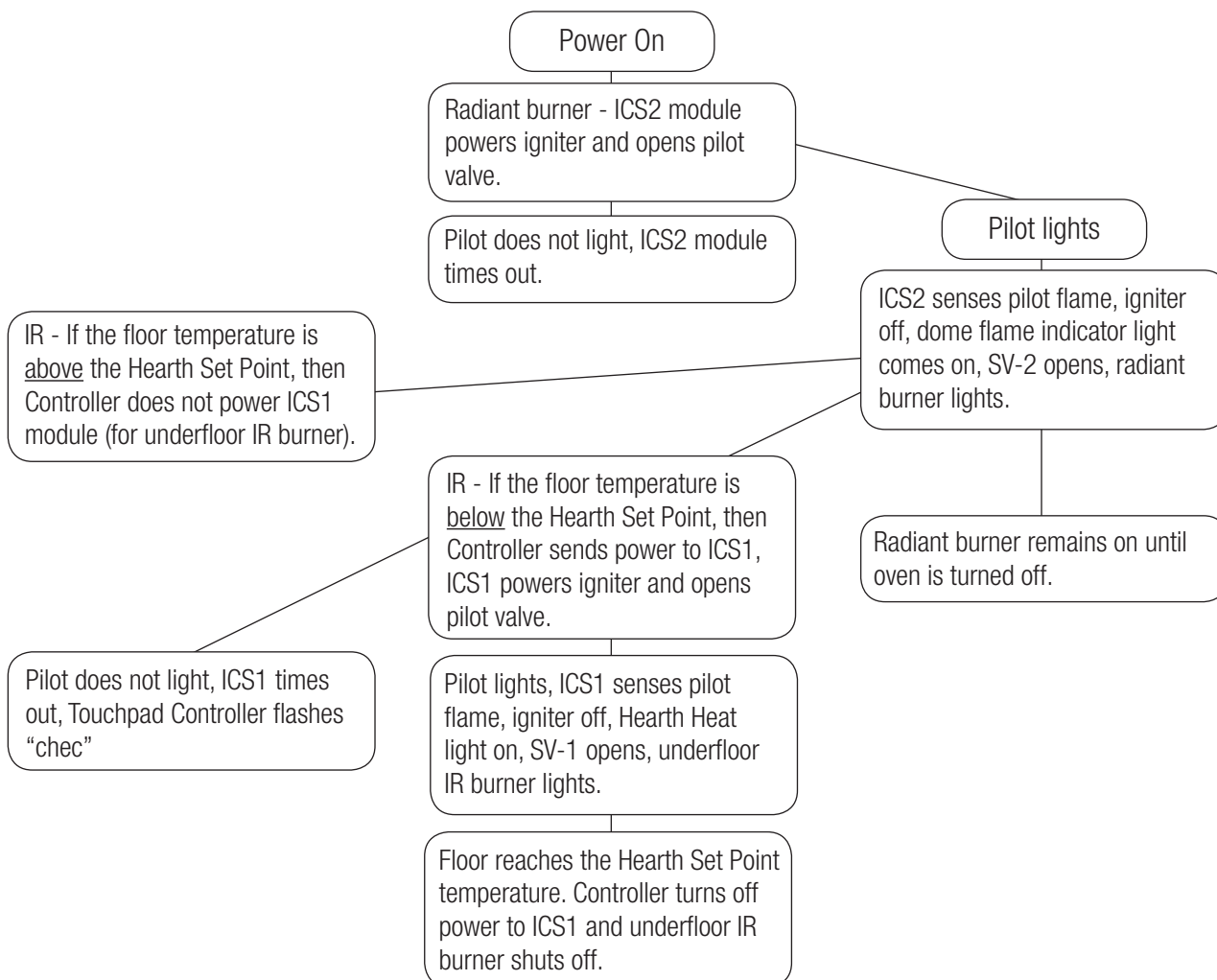
Gas-fired Oven: If a Wood Stone gas-fired oven is operated at low temperatures, it is possible that grease from food could condense on the walls and ceiling of the oven. To remove the grease that has accumulated on the walls and ceiling of the oven, simply turn the radiant flame to its highest setting. Monitor the floor temperature displayed on the controller. When the floor reaches 315 °C (600 °F), lower the flame slightly; maintain the oven floor temperature near 315 °C (600 °F) for about an hour. Once the oven dome appears clean, allow the oven to return to its normal operating temperature and continue normal operation.



RFG CE OVEN BURNER OPERATION SEQUENCE



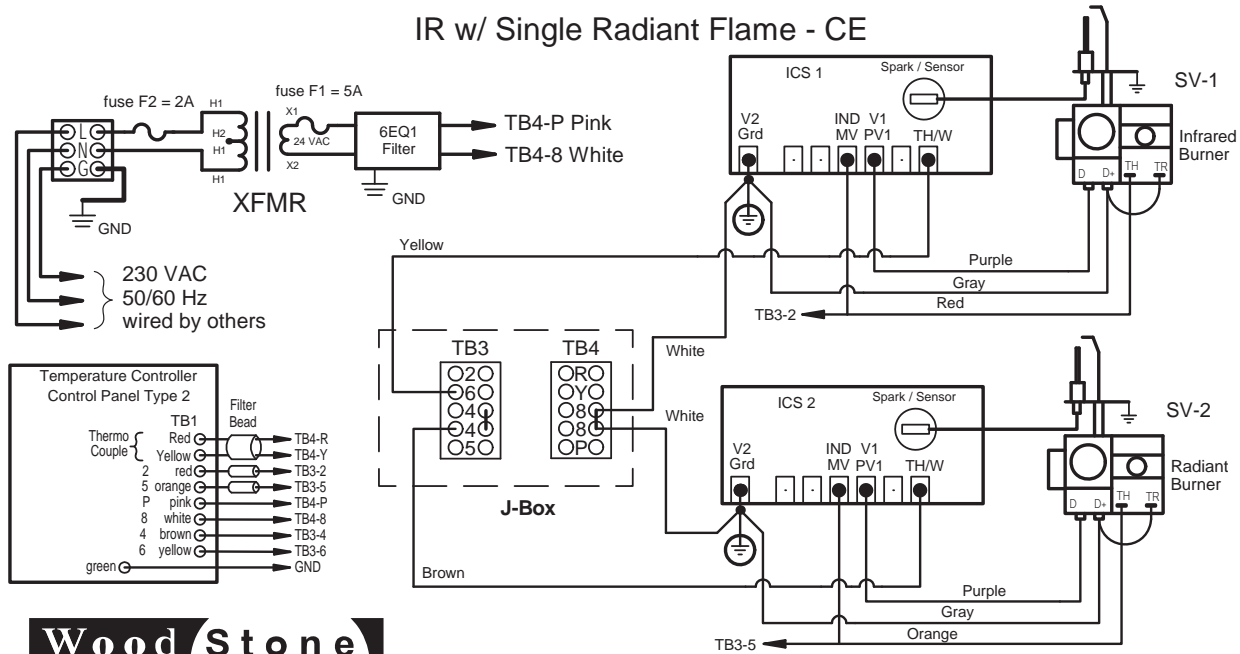
RFG-IR CE OVEN BURNER OPERATION SEQUENCE





RFG-IR-CE OVENS

IR w/ Single Radiant Flame - CE



Wood Stone

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DIAG #: WD066 Rev. 1

DATE: 4/7/2014

Wood Stone

An ongoing program of product improvement may require us to change specifications without notice. **WS-MS-(RFG, RFG-IR)-CE,**
Revised May 2014 Doc no: M0037.01

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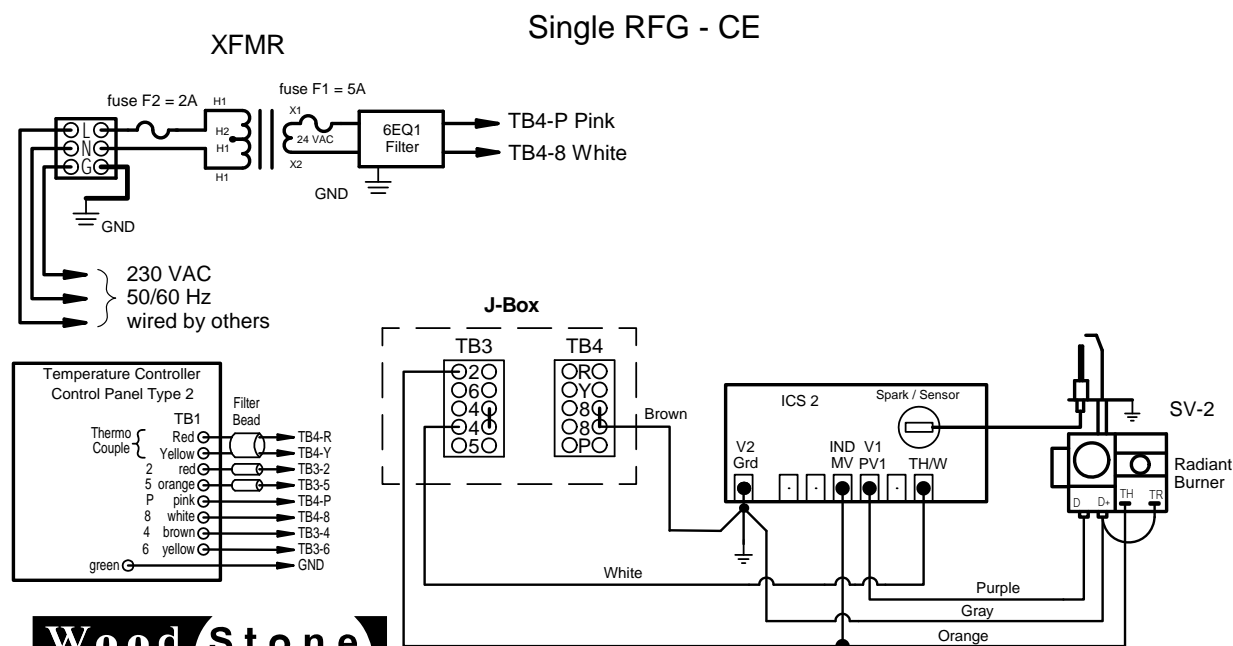
t. +1.360.650.1111

f. +1.360.650.1166



RFG-CE OVENS

WITH TYPE 2 CONTROLLER



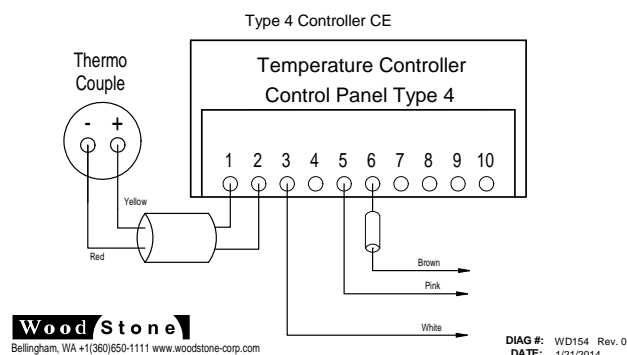
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DIAG #: WD069 Rev. 1

DATE: 3/28/2014

ALTERNATIVE TYPE 4 CONTROLLER



Wood Stone

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DIAG #: WD154 Rev. 0

DATE: 1/21/2014

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Revised May 2014 Doc no: M0037.01

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WOOD STONE WARRANTS ITS EQUIPMENT TO THE ORIGINAL PURCHASER AGAINST DEFECTS IN MATERIAL OR MANUFACTURE FOR A PERIOD OF ONE YEAR FROM THE ORIGINAL DATE OF PURCHASE, SUBJECT TO THE FOLLOWING EXCLUSIONS AND LIMITATIONS.

CONTACT YOUR LOCAL DISTRIBUTOR FOR WARRANTY SERVICE

EXCLUSIONS

The warranties provided by Wood Stone do not apply in the following instances:

1. In the event that the equipment is improperly installed. Proper installation is the responsibility of the installer; proper installation procedures are prescribed by the Wood Stone Installation and Operation Manual.
2. In the event the equipment is improperly or inadequately maintained. Proper maintenance is the responsibility of the user; proper maintenance procedures are prescribed in the Wood Stone Installation and Operation Manual. Burner problems resulting from debris or ash in the burner well will not be covered by the warranty. Call with questions regarding maintenance frequency.
3. In the event that the failure or malfunction of the appliance or any part thereof is caused by abnormal or improper use or is otherwise not attributable to defect in material or manufacture.
4. In the event that the appliance, by whatever cause, has been materially altered from the condition in which it left the factory.
5. In the event that the rating plate has been removed, altered or obliterated.
6. On parts that would be normally worn or replaced under normal conditions.
7. Normal cracking due to expansion and contraction stress relief in the ceramic firebox.
8. In wood-fired equipment configurations, in the event that pressed log products of any type have been burned in the equipment.
9. In coal-fired oven configurations, in the event any type of coal other than anthracite coal fuel has been used.
10. Damage resulting from the use of chemical cleaning products in the oven, as well as any damage from liquids or chemicals, including water, being poured or sprayed into the oven.

If any oral statements have been made regarding this appliance, such statements do not constitute warranties and are not part of the contract of sale. This Limited Warranty constitutes the complete, final and exclusive statement with regard to warranties.

THIS LIMITED WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES WHETHER WRITTEN, ORAL OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE OR WARRANTY AGAINST LATENT DEFECTS

LIMITATIONS OF LIABILITY

In the event of warranty claim or otherwise, the sole obligation of Wood Stone shall be the repair and/or replacement, at the option of Wood Stone, of the appliance or component or part thereof. Such repair or replacement shall be at the expense of Wood Stone with the exception of travel over 100 miles or two hours, overtime, and holiday charges which shall be at the expense of the purchaser. Any repair or replacement under this warranty does not constitute an extension of the original warranty for any period of the appliance or for any component or part thereof. Parts to be replaced under this warranty will be repaired or replaced at the option of Wood Stone with new or functionally operative parts. The liability of Wood Stone on any claim of any kind, including claims based on warranty, expressed or implied, contract, negligence, strict liability or any other theories shall be solely and exclusively the repair or replacement of the product as stated herein, and such liability shall not include, and purchaser specifically renounces any rights to recover, special, incidental, consequential or other damages of any kind whatsoever, including, but not limited to, injuries to persons or damage to property, loss of profits or anticipated profits, or loss of use of the product.

TO SECURE WARRANTY SERVICE:

Contact your local distributor.



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Revised May 2014 Doc no: M0037.01

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